

Big Lagoon Area Groundwater Basin

- Groundwater Basin Number: 1-27
- County: Humboldt
- Surface Area: 13,400 acres (square miles)

Basin Boundaries and Hydrology

The Big Lagoon Area Groundwater Basin is a coastal groundwater basin located approximately 10-miles north of Arcata. The basin is bounded to the east by the Franciscan Formation and Franciscan Complex. The Franciscan Complex outcrops throughout the basin. Basin deposits consist of Marine terrace deposits which extend inland between 1- to 2.5-miles (Wagner 1987). The deposits are predominantly massive, semi-consolidated clay, silt, sand and gravel and range in thickness from 1- to 140 feet (DWR 1982).

Annual precipitation ranges from 53- to 65-inches, increasing to the east.

Hydrogeologic Information

Hydrogeologic information was not available for the following:

Water-Bearing Formations

Groundwater Level Trends

Groundwater Storage

Groundwater Budget (Type B)

Estimates of groundwater extraction are based on a survey conducted by the California Department of Water Resources in 1996. The survey included landuse and sources of water. Estimates of groundwater extraction for municipal/industrial 240 acre-feet. Deep percolation from applied water is estimated to be 210 acre-feet.

Groundwater Quality

Water Quality in Public Supply Wells

Constituent Group ¹	Number of wells sampled ²	Number of wells with a concentration above an MCL ³
Inorganics – Primary	7	1
Radiological	2	0
Nitrates	13	0
Pesticides	0	0
VOCs and SVOCs	0	0
Inorganics – Secondary	7	1

¹ A description of each member in the constituent groups and a generalized discussion of the relevance of these groups are included in *California's Groundwater – Bulletin 118* by DWR (2003).

² Represents distinct number of wells sampled as required under DHS Title 22 program from 1994 through 2000.

³ Each well reported with a concentration above an MCL was confirmed with a second detection above an MCL. This information is intended as an indicator of the types of activities that cause contamination in a given basin. It represents the water

quality at the sample location. It does not indicate the water quality delivered to the consumer. More detailed drinking water quality information can be obtained from the local water purveyor and its annual Consumer Confidence Report.

Well Characteristics

Well yields (gal/min)		
Municipal/Irrigation	NKD	
Total depths (ft)		
Domestic	Range: 14 – 310	Average: 91 (60 Well Completion Reports)
Municipal/Irrigation		
NKD – No known data.		

Active Monitoring Data

Agency	Parameter	Number of wells /measurement frequency
DWR	Groundwater levels	1 well semi-annually
Department of Health Services	Miscellaneous water quality	31

Basin Management

Groundwater management:	No known groundwater management plans, groundwater ordinances, or basin adjudications.	
Water agencies		
Public	None	
Private	None	

Selected References

- California Department of Water Resources (DWR). 1982. Mendocino County Coastal Ground Water Study, California Department of Water Resources, Northern District.
- Wagner D L., Saucedo GJ. 1987. Geologic Map of the Weed Quadrangle, California, Regional Geologic Map Series 4A, California Division of Mines and Geology.

Bibliography

- California Department of Water Resources. 1975. California's Ground Water. California Department of Water Resources. Bulletin 118.
- California Department of Water Resources. 1980. Ground Water Basins in California. California Department of Water Resources. Bulletin 118-80.

Errata

Changes made to the basin description will be noted here.